AMENDMENTS TO CLAIMS

The following listing of claim will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Original) A sheath system for enabling access through an opening in the body of a patient, the sheath system comprising:

a dilation assembly having a radially expandable tubular sheath defining a lumen having a first cross-sectional area when in a non-expanded condition, and a handle assembly operatively coupled to a proximal end of the tubular sheath, the handle assembly defining an aperture formed therein, and a first thread defined on the handle in the aperture thereof; and

an expansion assembly including a tubular member defining a lumen having a second cross-sectional area which is larger than the first cross-sectional area of the tubular sheath of the dilation assembly and having an outer surface defining a second thread, the second thread being arranged for engaging the first thread.

2. (Original) The sheath system according to claim 1, further comprising an introducer sized for receipt in the lumen of the radially expandable sheath, when the radially expandable sheath is in the non-expanded condition.

3. (Original) The sheath system according to claim 1, wherein the tubular member of the expansion assembly is configured and dimensioned to be removably received within the aperture formed in the handle assembly of the dilation assembly.

4. (Original) The sheath system according to claim 2, wherein the tubular sheath of the dilation assembly comprises a mesh of individual filaments.

5. (Original) The sheath system according to claim 4, wherein the filaments are elastic so that radial expansion of the tubular sheath causes axial shortening of the tubular sheath.

6. (Original) The sheath system according to claim 2, wherein the tubular sheath comprises a tubular braid of individual filaments.

7. (Original) The sheath system according to claim 2, wherein the shaft of the introducer is removably receivable within the lumen of the tubular sheath.

8. (Original) The sheath system according to claim 3, wherein distal advancement of the tubular member of the expansion assembly results in radial expansion of the tubular sheath from the first cross-sectional area to the second cross-sectional area.

9. (Original) The sheath system according to claim 8, further comprising a seal at the proximal end of the expansion assembly.

10. (Original) The sheath system according to claim 9, wherein the seal is made from at least one of an elastomeric polymeric material and polyisoprene.

11. (Original) The sheath system according to claim 8, further comprising a dilator configured and dimensioned to be removably received within the lumen of the tubular member of the expansion assembly.

12. (Original) The sheath system according to claim 11, wherein a distal end of the dilator is tapered.

13. (Original) The sheath system according to claim 12, wherein the distal end of the dilator defines threads.

14. (Original) The sheath system according to claim 12, wherein the dilator has a length such that when the dilator is received within the lumen of the tubular member, the tapered distal end thereof extends beyond a distal end of the tubular member.

15. (Original) The sheath system according to claim 14, wherein the shaft of the introducer has a length such that when the introducer is received within the lumen of the tubular sheath, a distal end thereof extends beyond a distal end of the tubular sheath.

16. (Original) The sheath system according to claim 9, further comprising a converter configured and dimensioned to be removably attached to a proximal end of the expansion assembly, the converter including an aperture formed therein, the aperture of the converter having a cross-sectional area less than a cross-sectional area of the opening formed in the seal of the expansion assembly.

17. (Original) A method of using a sheath system to enable access through an opening in the body of a patient, comprising:

inserting a dilation assembly, having a radially expandable sheath defining a lumen and a proximal housing defining an aperture and a first thread in the aperture, into the opening in the body of the patient; and

introducing an expansion assembly, having a tubular member with an outer surface defining a second thread, into the lumen of the dilation assembly to radially expand the lumen

of dilation assembly and the opening in the body of the patient, the introduction including engaging the first thread with the second thread.

18. (Original) The method according to claim 17, further comprising inserting an introducer into the dilation assembly prior to the step of inserting the dilation assembly.

19. (Original) The method according to claim 17, further comprising inserting a dilator into the expansion assembly prior to the step of introducing the expansion assembly.

20. (Original) The method according to claim 17, wherein the lumen of the dilation assembly has a first cross-sectional area and the lumen of the expansion assembly has a second cross-sectional area which is larger that the first cross-sectional area of the lumen of the dilation assembly.

21. (Original) The method according to claim 20, wherein the sheath is made from a mesh of individual filaments.

22. (Original) The method according to claim 21, wherein radial expansion of the tubular sheath causes axial shortening of the sheath.

23. (Original) The method according to claim 17, wherein the introduction of the expansion assembly includes distal advancement of the tubular member of the expansion assembly through the sheath of the dilation assembly, resulting in radial expansion of the sheath.

24. (Original) The method according to claim 17, wherein engaging the first thread with the second thread includes rotation of the tubular member with respect to the dilation assembly.

25. (Original) The method according to claim 17, wherein the expansion assembly includes a seal disposed across the lumen of the tubular member, the seal including an opening formed therein, and the method further includes introducing an instrument into the tubular member through the opening of the seal.

26. (Original) The method according to claim 25, further including removably attaching a converter to a proximal end of the tubular member, wherein an opening formed in the converter has a cross-sectional area which is less than the cross-sectional area of the opening formed within the seal.

Claims 27-30. (Canceled)